



BENCHMARKS

The University of North Texas Computing Center Newsletter

VOLUME 13 NUMBER 7

September 1992

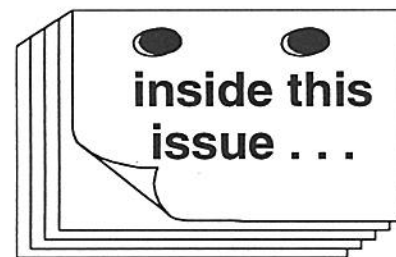
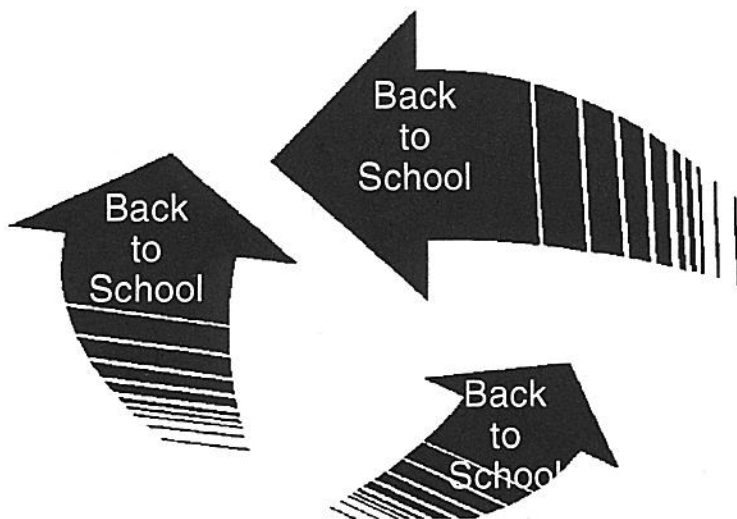
Greetings from the Senior Director of Academic Computing

By Paul Gandel, Senior Director of Academic Computing

Let me start by saying how delighted I am to have this opportunity to welcome new and returning students, faculty, and staff to the 1992-93 academic year at UNT. And since I'm one of the newcomers to campus, I also want to introduce myself to those of you I haven't had the pleasure of meeting yet. (A condition I hope to remedy in the near future!)

When I interviewed for the position of Senior Director of Academic Computing last spring, I was often asked to describe my views about the future trends of computing technologies. My belief then, and now, is that the rapid development of new computing technologies makes speculation about future trends virtually limitless and overstatement of the possibilities virtually impossible. Unfortunately, the rapidity with which changes are made in our profession leaves many of us scrambling to keep pace with technological developments.

To me, this state of affairs presents a challenge that we, as suppliers of computing resources, must face. The challenge—as I see it—is not to be so caught up in the unrelenting flow of new computing technologies that we lose sight of our mission. In academic computing support, that mission is to help you, our customers, use computing resources to reach your goals expeditiously.



□ BACK TO SCHOOL

Meet the Senior Director of Academic Computing	3
An Index of Academic Computing Services	3
Documentation Available from ACS Student Computing Facilities at UNT	7
8040 Line-mode Access Discontinued	8
General Access Labs and Their Locations	8
MUSIC to CMS Conversion	8
Learning to Use XEDIT on CMS	9
1992 Fall Short Courses	10
Using the KERMIT File Transfer Program on UNT Host Systems ...	13
The Network Connection	13
List of the Month	14
SAS Institute Support Services	15
Workstation Consulting	15
Accessing SAS Support Services	15
Staff Activities	16
UNT Computing Committees	16
IRC News	16
Calls for Papers	22

□ MICROCOMPUTERS

MICRO-TIPS	23
Virus Update	24
WordPerfect User's Group	24

□ VAX/UNIX SYSTEMS

VAXCLUSTER Usage Statistics	25
VAX/UNIX News	25
Solbourne Usage Statistics	26
The UNIX Shell	26

□ MAINFRAME TECHNICAL SERVICES

Performance Statistics	27
Disk Backup Schedules	29

☆ UNT COMPUTING CENTER ORGANIZATION AND FACILITIES ☆

The UNT Computing Center is located in the Information Sciences Building (ISB), Room 119. Phone: (817) 565-2324 (TDD 1-800-RELAY-TX), unless otherwise noted. It is divided into the following areas:

☐ Academic Computing Services:

- Documentation Services
- ISB 110 General Access Lab (817) 565-3048
- Mainframe User Services
- Statistical Services
- VAX/UNIX Systems (817) 565-4161

☐ Network & Microcomputer Services (817) 565-2316:

- Data Communications
- Microcomputer Application Support
- Network Systems Support

☐ Administrative Computing:

- Admissions Data Systems
- Database/Central Programming Support
- General Data Systems
- NT/TCOM Fiscal Data Systems
- NT/TCOM Payroll/Personnel
- Student Records
- Student Services
- Voice Response Applications

☐ Mainframe Technical Services:

- IBM Operating Systems Software Support
- Computer Operations
- Production Services



CONNECTING TO UNT COMPUTERS



Phone numbers for accessing UNT computing systems:

300-2400 BAUD: (817) 565-3300
 300/1200 BAUD: (817) 565-3499
 300-9600 BAUD: (817) 565-3461
 300-2400 BAUD: D/FW METRO 792-4140

Area code 214 must dial 817 before the METRO #. **Note:** Dialing 1 before the area code will result in a long distance charge.

Set Data Bits to 7, Parity to S, and Stop Bits to 1. When dialing in, the autobaud feature requires you to hit the <RETURN> key repeatedly after the connection is made so that the receiving modem can determine the baud rate. When you see the prompt (# for local numbers, UNTMODEMS> for the metro lines) you can enter one of the following commands to connect with the system of your choice.

SYSTEM	SYTEK/DENTON LINES (#)	METRO LINES (UNTMODEMS>)	INTERNET (CUTCP, NCSA)
<i>ACS Host Systems</i>			
Academic Mainframe (MUSIC, CMS, Academic COM-LETE)	CALL 3270	CONNECT VM3270	tn3270 vm.acs.unt.edu —OR— telnet vm3270.acs.unt.edu
VAX (VMS)	CALL DEC	CONNECT DEC	telnet vaxb.acs.unt.edu
Solbourne (UNIX)	CALL 900	CONNECT SOL	telnet sol.acs.unt.edu
<i>Departmental Systems</i>			
Computer Sciences Sequent (Ponder)	CALL 780	CONNECT PONDER	telnet ponder.csci.unt.edu
UNT Libraries' on-line card catalog	CALL 3000	CONNECT LIBRARY	telnet library.unt.edu

To exit from the local phone lines, press <ESCAPE><RETURN>, and type DONE (at the # prompt), then press <RETURN><RETURN>. To exit from the metro lines, press <CTRL-SHIFT-6>, then type DISCONNECT (at the UNTMODEMS> prompt), then press <RETURN>. Exiting from telnet and TN3270 is dependent upon the package. CUTCP uses <ALT-X>.

HOURS FOR UNIVERSITY OF NORTH TEXAS COMPUTER ACCESS AREAS : Fall 1992

Day of Week	Willis	BA	ISB 110	Chilton, Matthews, Music	GAB	Terrill, Wooten	ISB 205C	Lab Locations
Monday - Thursday	Open 24 hrs.	8 a.m. - 11:45 p.m.	7:30 a.m. - Midnight	8 a.m. - 10 p.m.	8 a.m. - Midnight	8 a.m. - 8 p.m.	Noon - 10 p.m.	☆ BA: 330, 332 ☆ Chilton: 255, 116 [Adaptive Lab] ☆ GAB: 330, 550 ☆ ISB: 110, 205C — grad. students only ☆ Matthews: 309 ☆ Music: 1007 ☆ Terrill 247 ☆ Willis: 134 ☆ Wooten: 120
Friday	Open 24 hrs.	8 a.m. - 8 p.m.	7:30 a.m. - 9 p.m.	8 a.m. - 5 p.m.	8 a.m. - 5 p.m.	8 a.m. - 5 p.m.	1 p.m. - 5 p.m.	
Saturday	Open 24 hrs.	8 a.m. - 8 p.m.	9 a.m. - 9 p.m.	10 a.m. - 5 p.m.	2-8 p.m.	Closed	10 a.m. - 5 p.m.	
Sunday	Open 24 hrs.	Noon - 11:45 p.m.	1 p.m. - Midnight	1 - 10 p.m.	2 p.m. - Midnight	2-8 p.m.	1 - 10 p.m.	

This issue of Benchmarks was produced by the Documentation Services section of Academic Computing using Xerox Ventura Publisher on a 386SX clone and printed on an HP LaserJet III. Unless otherwise noted, articles or information may be reproduced for nonprofit purposes provided the publication and issue are fully acknowledged.

Don't get me wrong, technology is a critical component in any effective computing environment and anyone who purports to be a computing professional must stay abreast of new technological trends. However, it is my firm belief that the need for and effectiveness of academic computing resources will be judged by the quality of the service provided to the academic community—not just by the technologies chosen to provide that service.

Furthermore, I believe that building a strong foundation as a springboard for consistent high-quality computing services happens when those in charge of computing technologies work closely with users (both current and potential) as a "customer/supplier" team. This "team" approach is the best way I know of to ensure long-range, high-quality computing resources in an academic setting.

I am looking forward to being part of UNT's computing-support team and working with all of you to make UNT's computing environment the best that it can possibly be. Please know that my door is always open to you, your concerns, your needs, and your ideas.

In the meantime, don't be surprised to find me at your doorstep. I plan to meet with as many of you as possible during the next few months to get a clear understanding of your computing needs. If you want to reach me before then, my number is 565-3854! ■

Customized Short Courses Available

Faculty members can request "customized" short courses for their classes. Contact ACS to request a course (565-2324, ISB 119). ■

Meet the Senior Director of Academic Computing

Dr. Paul Gandel, Senior Director of Academic Computing, comes to UNT from AT&T Bell Laboratories, Holmdel, New Jersey. As supervisor of the Computing Technology Group at Bell Laboratories, Dr. Gandel was responsible for managing the computing systems of the Quality Process Center. He was responsible for the long-range strategic planning of the center's computing environment and he and his group were responsible for the ongoing development and daily operation of extensive computing resources — serving researchers with diverse interests and goals.

Dr. Gandel holds a Ph.D. in Information Science from the School of Information Studies, Syracuse University, Syracuse, NY. He has an M.A. in Library Science from The University of Wisconsin, Madison, an M.F.A. in Photography, State University of New York, Buffalo, and a B.A. in History, State University of New York, Buffalo.

Paul has conducted research and published in the areas of information systems, human visual information processing, computer-assisted instruction and software engineering. He has taught at the University of Iowa, Syracuse University, and, most recently, at Rutgers University. Paul is an active participant in various academic associations and is a regular reviewer for the *Communications of the ACM* and *SIGIR Forum*. In addition to his duties as Senior Director of Academic Computing, Paul will maintain a joint appointment as an Associate Professor in the School of Library and Information Sciences.

Kandice Salomone Gandel, Paul's wife, will join the Institute of Applied Sciences in the fall where she plans to continue her work in environmental risk communication. In addition to her work here at the Institute, Kandice will continue her affiliation with the Environmental Communication Research Program at Rutgers University where she is completing work on a three-year grant from the Hazardous Substance Management Research Center at the New Jersey Institute of Technology. ■

An Index of Academic Computing Services

By Dr. Philip Baczewski, Assistant Director of ACS (ac12@unt.edu)

This article is intended to provide a general reference to services offered by the Academic Computing Services (ACS) organization within the Computing Center. For additional information you can also refer to the documents *Welcome to the University of North Texas Computing Center*, for a description of hardware and operating systems available on the host systems, as well as *Policies and Procedures for Academic Computing*, for the operating policies related to the host systems. For a list of programming languages and applications available on the host systems, refer to *Host System Software: What We Have and What We Support*. All are available at the Computing Center office (Information Sciences Building, room 119). The *ACS Handbook*, which will be available soon, contains the information available in these

Back to School

separate documents along with a lot of other useful information about academic computing at UNT.

Academic Computing Services is the division of the University of North Texas Computing Center which exists to provide centralized computing support for instruction and research at UNT. Academic Computing Services provides access to host-based computing, wide area networking, and distributed computing technologies. We support a number of software products, including the principal statistical analysis packages in use by researchers and programming languages used for computing instruction. Towards these ends, we offer information in the form of locally written documentation, computing short courses, or personal consultations.

ACS contains five computing support areas as well as an administrative services component which also serves other areas of the Computing Center. While each staff member has a specialization within their particular area, you will find that often their expertise also includes topics from one or more of the other areas of ACS. This broad base of support helps maintain the greatest possible access to academic computing information as it pertains to the UNT environment. With this in mind, most consultation services provided by ACS are listed in the table on the right, followed by the support area providing the service (if a service you need isn't listed in the table, please call ACS and we will connect you with the appropriate support area). The support areas and their associated manager are as follows:

- ☐ **RSPSS: Research and Statistical Programming Support Services** (Panu Sittiwong)
- ☐ **VUS: VAX/UNIX Services** (Billy Barron)

Any questions/concerns about Academic Computing Services in general should be directed to Dr. Paul Gandel, Senior Director of Academic Computing (565-3854).

All staff can be contacted at 565-2324. VAX/UNIX services can also be reached at 565-4161 and the ACS General Access Lab can be reached at 565-3048. Please note that Academic Computing staff do not consult on student programming assignments, but do provide consultation assistance to faculty and staff in support of research and instruction.

ACS Service Area	Specific Topic (if any)	ACS Support Area
Academic host systems	HDS 8083 Mainframe	AMUS
	Introduction to accessing systems	ACSGAL
	Solbourne 900 series super-minicomputer	VUS
	User-ID requests	AS
	VAX 6310 mini-computer	VUS
Consultation referral		AS
Computing Center Newsletter	<i>Benchmarks</i>	DS
Data analysis		RSPSS
Data archives	General questions	RSPSS
	Center for Research in Security Prices (CRSP)	RSPSS
	Inter-University Consortium for Political & Social Research (ICPSR)	RSPSS
	Standard and Poor's COMPUSTAT	RSPSS
Database	Mainframe systems used for instruction	AMUS
Desktop publishing using Ventura Publisher		DS
Documentation	Distribution	AS
	Production	DS
Microcomputer hardware for student use	PC-compatible computers	ACSGAL

- ☐ **ACSGAL: ACS General Access Lab** (Eriq Neale)
- ☐ **AMUS: Academic Mainframe User Services** (Dr. Philip Baczewski)
- ☐ **AS: Administrative Services** (Pam Summers)
- ☐ **DS: Documentation Services** (Claudia Lynch)

Back to School

ACS Service Area	Specific Topic (if any)	ACS Support Area
Microcomputer hardware for student use	Laser printing	ACSGAL
	Macintosh computers	ACSGAL
	Impact printing	ACSGAL
Microcomputer software for student use	SuperPaint	ACSGAL
	DrawPerfect	ACSGAL
	Grammatik	ACSGAL
	SPSS-PC	ACSGAL
	SAS-PC	ACSGAL
	SPSS-Macintosh	ACSGAL
	Right Writer	ACSGAL
Microcomputer software	TCP/IP for MS-DOS, use	VUS
	TCP/IP for MS-DOS, installation	VUS
	TCP/IP for the Macintosh, use	VUS
	TCP/IP for the Macintosh, installation	VUS
MVS Job Control Language (JCL)		AMUS
Operating systems	CMS	AMUS
	MUSIC/SP	AMUS
	MVS/SP	AMUS
	UNIX	VUS
	VM/XA	AMUS
	VMS	VUS
Password verification requests		AS
Programming languages	C	VUS
	COBOL	AMUS
	FORTRAN	AMUS, VUS
	LISP	VUS
	Pascal	VUS
	perl	VUS
	PL/I	AMUS
	REXX	AMUS
Research design		RSPSS
Short courses	Registration	AS
	Scheduling	DS

Please see Table on page 6.

Documentation Available from ACS

By Claudia Lynch, *Benchmarks* Editor and Documentation Services Manager (as04@unt.edu)

Academic Computing Services is committed to providing quality services to the academic community here at UNT. Throughout this newsletter you will see references to various services available to faculty and students, and in many cases, staff members. One of these services is the production and dispersal of free documentation on a variety of topics of interest to computer users on this campus.

The documentation listed in this article is available to faculty, staff, and students — when appropriate — in ISB Room 119 — the UNT Computing Center main office. Additionally, notebooks containing most of these documents is in each General Access Lab for reference purposes. Please note that this list may not remain completely accurate for very long, since documents are continually being created and updated.

General Information

- *1991 CRSP Data Information.*
- *Academic Computing Services Handbook.* This document incorporates some of the other documents listed in the remainder of this article.
- *Host Systems Software - What We Have and What We Support.* Software Reference Material.
- *Introduction to COMPUSTAT II.*
- *Policies and Procedures for Academic Computing.*

Please see Documentation on page 6.

Back to School

Table continued from page 5.

ACS Service Area	Specific Topic (if any)	ACS Support Area
Statistical analysis packages	BMDP	RSPSS
Statistical analysis packages	EQS	RSPSS
	LISREL	RSPSS
	Microcrunch	RSPSS
	Minitab	RSPSS
	SAS	RSPSS
	SAS-PC	RSPSS
	SPSS	RSPSS
	SPSS-Macintosh	RSPSS
UNIX workstations	SPSS-PC	RSPSS
	Sun or Solbourne configuration and management	VUS
Wide Area Networks	General consultation	VUS
	BITNET	AMUS
	Internet	VUS

Documentation continued from page 5

- *System Command Guide*. Command Cross-reference Material.
- *Welcome to the University of North Texas Computing Center*. Computing Center Informational Handout.

MUSIC/SP Reference Material

- *Introduction to MUSIC/SP*.
- *Introduction to Computer Personal Workstation (PCWS)*.
- *An Introduction to the Supervisor Privilege*. MUSIC/SP Reference Material for Instructors with class accounts.

CMS Reference Material

- *A User's Guide to Electronic Mail on CMS*.
- *Introduction to the Conversational Monitor System (CMS)*.

COM-PLETE Reference Material

- *Notes on Using COM-PLETE*.
- *The COM-PLETE Mail System*: Administrative COM-PLETE Reference Material.

MVS Reference Material

- *Introduction to IBM Job Control Language*.

Statistical Packages

Miscellaneous

- *A User's Guide to the University of North Texas Computing Center Statistical Program Library*. Manual for old NTSU Statistical Procedures - Version III.

SPSS

- *Introduction to SPSS*.
- *SPSS/PC+*.

SAS

- *Introduction to SAS*.
- *SAS-PC*.

VAX Reference Material

- *Introduction to VAX/VMS*.
- *Introduction to Instructor Privileges on VAX/VMS*. Reference Material for Instructors with class accounts.
- *Editing With EDT*.

Solbourne Reference Material

- *An Introduction to Display Editing with vi*.
- *Introduction to UNIX*.
- *Domain Name Service and BOOTP Request Guidelines*.

Wide Area Network Reference Material

- *Accessing On-Line Bibliographic Databases*. This large document is available for reference only in the General Access Labs.

- *Accessing On-Line Bibliographic Databases in the North Texas Area.* This document is a subset of the larger one listed on the preceding page.
- *An Introduction to BITNET .*
- *ANU News Reference Guide .*
- *ANU News User's Guide .*
- *The Internet.*
- *Making Connections.*
- *The Texas Higher Education Network . THENET Documentation.*
- *Using CUTCP ,Telnet, FTP, TN3270.*

Communications

- *Connecting PCs to Host Computers at UNT .*
- *Introduction to PROCOMM Plus.*
- *Using MS-Kermit*
- *Using the 3270 Protocol Converter at UNT .*

Microcomputers

Microcomputer Networks

- *Introduction to NOVELL NETWARE for Supervisors.*
- *Introduction to NOVELL NETWARE .*
- *Pegasus Mail.*

Operating Systems

- *Introduction to Microcomputers, DOS (Disk Operating System), and Hard Disk Management.*
- *MS-DOS In-depth.*

Text Processing

- *Introduction to WordPerfect Version 5.1 .*
- *WordPerfect 5.1: Advanced Applications.*

Spreadsheets

- *Lotus 1-2-3 .*
- *Introduction to PlanPerfect 5.0.*
- *Introduction to dBASE IV : dBASE IV Reference Material.*

WordPerfect Office

- *WordPerfect Office 3.0: Notebook.*
- *WordPerfect Office, Version 3.1: Calendar and Scheduler. ■*

Student Computing Facilities at UNT

By Eriq Neale, ACS General Access Lab Manager (neale@unt.edu)

The General Access Labs have been placed in strategic locations throughout the UNT campus. A list of labs and their locations is contained in the table on page 8. The hours that the labs are open vary from location to location. Lab hours can be found on the inside of the cover page of each issue of *Benchmarks*.

All of these labs have a number of IBM compatible computers on which students can run WordPerfect and other PC software. A few of the labs, namely the Academic Computing Services (ACS), College of Arts and Sciences, College of Education, and Willis Library, also have Macintosh computers with Microsoft Word and Microsoft Works installed. The College of Education lab also has a number of Apple II computers for students.

The complete General Access Lab Policies and Procedures are displayed at each of the participating labs, but a few of these policies bear special mention.

- ❶ All students wishing to use a lab must have a valid UNT Student ID. Driver's licenses and meal cards will not be accepted.
- ❷ Each student is guaranteed a minimum of one hour's use of a computer. If a lab has a waiting list, students in the lab will be asked to relinquish their computer if they have used it an hour or more. Those students may have their names put on the waiting list.

- ③ All student disks will be scanned for viruses in the labs.
- ④ No eating, drinking, or smoking is allowed in the lab facilities. ■

8040 Line-mode Access Discontinued

By Dr. Philip Baczewski, Assistant Director of Academic Computing Services
(ac12@unt.edu)

8040 Line-mode access to the Academic mainframe system was officially discontinued on September 1, 1992. This service was maintained primarily to support access to MUSIC/SP via the PCWS communications package. The age and nature of the communications hardware supporting line-mode access have made it impossible to continue its maintenance at a production level. Because there is no replacement hardware on hand and because newer communications technologies are being deployed on campus, it will no longer be possible to support line-mode access to MUSIC or to support the PCWS communications package.

ACS recognizes that for some, this move will greatly affect their access method for mainframe computing, and in response we will offer customized training upon request, either individually or to small groups, on the Procomm, Kermit, or CUTCP communications packages. If you have any questions or comments concerning the discontinuing of line-mode access, please direct them to Dr. Philip Baczewski (ISB 119, 565-2324). ■

General Access Labs and Their Locations

<i>Computer Lab</i>	<i>Location</i>
Academic Computing Services	ISB 110
Adaptive Lab	Chilton 116
College of Business	Business 330 and 332
College of Education	Matthews 309
College of Music	Music 1007
Chilton	Chilton 255
General Academic Building	GAB 330 and 550
School of Library and Information Sciences	ISB 205C — Graduate students only.
Terrill	Terrill 247
Willis Library	Willis Library 134
Wooten	Wooten 120

MUSIC to CMS Conversion

By Dr. Philip Baczewski, Assistant Director of Academic Computing (ac12@unt.edu)

The June 1992 issue of *Benchmarks* (vol. 13, no. 5, pp. 17-18) contained an article announcing the Information Resources Council's approval of moving from MUSIC to CMS as the primary interactive academic mainframe operating system. The following information is taken from that article.

A Transition Timetable for Discontinuing Support for MUSIC/SP

Currently, MUSIC is scheduled to be removed from the academic mainframe system in September of 1993. This allows one year to complete the transition from MUSIC to CMS. Based upon a one-year period, the following is a proposed timetable for managing the transition from MUSIC to an alternative Academic Computing host

Back to School

system. During this time period, at least one part-time Academic Computing Services staff member will be devoted to the task of training new CMS users and all ACS mainframe user services staff will be available for consultation. Regular classes will be held so that MUSIC users can be introduced to CMS or an alternative platform, and classes can also be scheduled upon request. The following plan is proposed to correspond with the academic calendar.

Fall 1992

- 1 Faculty and individual students will be discouraged from applying for new MUSIC User-IDs, and encouraged to use CMS or an alternative Academic Computing platform instead.
- 2 During the semester, faculty and individual MUSIC users will be encouraged to apply for an ID on an alternative Academic Computing platform and to start using it as their primary operating system. Classes will be held specifically to introduce longtime MUSIC users to alternative platforms.
- 3 Faculty members will be encouraged to prepare for using CMS or an alternative platform for class accounts in the spring semester.
- 4 Academic Computing Services staff will be available to hold special introductory CMS short courses for the classes whose professors request CMS for their classroom ID codes.

Spring 1993

- 1 No new MUSIC User-IDs will be issued to faculty or individual users except with special approval by Academic Computing Services management. Use of MUSIC will be discouraged in favor of other Academic Computing platforms.
- 2 Academic Computing Services staff will be available to hold special introductory CMS short courses for the classes whose professors request CMS for their classroom User-IDs.
- 3 During the semester, faculty and individual MUSIC users will be encouraged to apply for a User-ID on an alternative Academic Computing platform and to start using it as their primary operating system. Classes will be held specifically to introduce longtime MUSIC users to alternative platforms.

Summer 1993

- 1 No new MUSIC User-IDs will be issued to faculty or individual users and no MUSIC class User-IDs will be issued except with special approval by Academic Computing Services management.
- 2 Any Faculty or Individual MUSIC users who have not applied for and received User-IDs on alternative platforms will be contacted by Academic Computing Services staff and encouraged to do so if they wish to maintain their access to an academic host system.
- 3 After the end of the second summer term, all MUSIC User-IDs will be purged and MUSIC/SP will be removed from the mainframe system.

If you have any questions or comments about the de-installation of MUSIC, or the transition away from MUSIC as the primary interactive system on the academic mainframe, please direct them to Dr. Philip Baczewski (ISB 119, 565-2324). ■

Learning to Use XEDIT on CMS

By Cathy Hardy, Academic Database Administrator (ac55@unt.edu)

Are you ready to learn, or brush up on, your CMS editor skills? Feeling comfortable with the editor can increase your productivity level and really make life easier. For instance, would you rather spend your time deleting each character in a line with the delete key, or type 'd' in the command line and remove the entire line with a simple key stroke (lesson 3)? Have you ever deleted a line that you want back (lesson 5)? Need to learn to use multiple screens (lesson 9)? The more you understand the editor's features, the faster you can accomplish your task, and the faster you can get out the door for pizza and a movie.

Self-Teach

For first-time (or rusty) users, try the on-line tutorial package, SELF-TEACH. SELF-TEACH has 15 lessons that you can use in any order, at any time. These lessons cover such things as XEDIT commands, XEDIT PROFILE, and a brief look at macros with REXX and EXEC 2. A list of the lesson topics is included in the SELF-TEACH introduction (on screen 2). Just type **SELFTEACH** at the CMS *Ready prompt. (Just s-l-f-t-e-a-c-h, don't put the 'e' in self.) You'll see this SELF-TEACH/IBM logo screen at the beginning of the introduction and at the beginning of each of the 15 lessons. The bottom line of the logo screen prompts you to press PF8 to continue.

The screens for the lessons and introduction are generally set up with the title of the module on the first line (e.g.: Introduction to Self-Teach, Tailoring

Your Screen, Moving Through a File), and your location in that module in the top right corner. For instance:

Introduction to Self-Teach Intro
1 of 7

The above heads the first 'page' of the introduction module showing you that you are on screen 1 and there are 7 screens in the introduction. Most screens are set up in this manner. The exercise screens are exceptions to this. They look like ordinary XEDIT sessions with no lesson title and no screen numbering in the upper right corner.

Each lesson module will have its objectives clearly stated on one of the early (usually the second or third) screens, as well as the approximate length of time needed to complete the lesson. For example, the first lesson (Tailoring Your Screen) has these objectives and time estimate:

- introduces you to the XEDIT editor and the basics of its commands
- explains the forms of the commands accepted by XEDIT
- explains the purpose of the profile used in XEDIT
- provides exercises to give you experience using the screen tailoring commands
- provides a list of IBM manuals that support XEDIT

This lesson should take approximately 25 to 40 minutes to complete.

By paging to the lesson's objectives screen, you can determine if the lesson covers areas which interest you and decide if you have the time to really use the exercises as they were intended. These lessons are self-paced and can be as fast or slow as you need. You can, of course, leave a lesson at any time by using the PF3 key to exit. To begin lesson one, at the CMS Ready prompt, type: **SLFTEACH LESSON1**

XEDIT Help

Already familiar with the editor? Want a quick check on a command? At the Ready prompt, type: **HELP XEDIT MENU** You will get a list of XEDIT help topics. These include XEDIT commands, but not the hints and how-to's you'll find with Self-Teach. Self-Teach tells you how to use a forward slash in the prefix area (lesson 2) and you have to know to look in the *PREFIX topic for a '/' to know that this will set the new current line in XEDIT.

HELP is a good tool to use when you have at least a nodding acquaintance with XEDIT, but need some clarification on a particular command or subcommand. ■



Academic Computing Services is offering the following short courses for the 1992 fall semester. Please preregister to attend (a registration form can be found at the end of this issue). **A maximum of 10 people will be admitted to each of the courses held in ISB 110. A maximum of 15 people will be admitted to each of the courses held in Chilton 255. A maximum of 8 people will be admitted to each of the courses held in ISB 123.** *Academic Computing Services reserves the right to cancel ANY course that has 5 people or fewer registered 3 days before the date of the course.*

PLEASE NOTE: Faculty and students have first priority to register for these classes. All people registering for hands-on (ISB 110) HDS, VAX and/or UNIX courses should have current User-IDs. Applications for User-IDs are available in the Computing Center main office (ISB 119).

HDS, VAX, AND UNIX COURSES

1. **Introduction to CMS for MUSIC Users** — This course will focus on helping people who use MUSIC/SP (which is being phased out) migrate to the CMS operating system.

These courses will be taught on demand. Contact Academic Computing Services (565-2324) to request a class.

Back to School

2. **Introduction to CMS** — CMS is an interactive operating system employed by academic users to access the Academic HDS/8083 IBM-compatible mainframe computer at UNT. CMS users have access to a variety of programming languages, a sophisticated text editing system, and several statistical analysis packages. CMS users can also submit batch jobs to the OS/MVS system.

Two two-hour sessions, held in the Science Library (ACS General Access Lab ISB 110):

- **Thursday, September 17: 3:00-5:00 p.m. Instructor: Cathy Hardy**
- **Wednesday, September 30: 10:00 a.m.-Noon. Instructor: Cathy Hardy**

3. **Introduction to IBM MVS Job Control Language (JCL)** — This course provides an overview of IBM JCL for users who wish to further their knowledge in this area. It is useful to individuals who plan to run MVS batch jobs (e.g. SAS, SPSS-X) on the HDS IBM-compatible mainframe computer.

A two-hour session held in the Academic Computing Conference Room (ISB 123):

- **Wednesday, September 23: 3:00-5:00 p.m. Instructor: George Morrow**

4. **Introduction to VAX/VMS** — VMS is the interactive operating system used on the Digital Equipment Corporation (DEC) VAXcluster. The VAXcluster supports a variety of applications. The topics covered in this course include gaining access to the VAXcluster through the Local Area Network, logging in and out, changing your password, creating files and directories, creating login command files, using the EDT editor, defining logicals and symbols, and electronic mail.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):

- **Wednesday, September 30: 3:00-5:00 p.m. Instructor: Staff**

5. **Introduction to UNIX** — Take the plunge into the wonderful world of UNIX. This course will start with a short discussion of the history and evolution of UNIX covering both the "Berkley Software Distribution" and "AT&T System V" variants of UNIX. Topics covered will be the basic necessities for using UNIX and use of some of the various utilities available in UNIX.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):

- **Tuesday, October 6: 3:00-5:00 p.m. Instructor: Marc St.-Gil**

6. **Introduction to vi** — This course is recommended for individuals who want to learn the standard UNIX editor, vi.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):

- **Thursday, October 8: 3:00-5:00 p.m. Instructor: Marc St.-Gil**

STATISTICAL PACKAGE COURSES

1. **Introduction to SAS** — This course is recommended for individuals who plan to incorporate statistical analyses into their research. The basic concepts of the SAS system are covered in this course. This course or prior knowledge of SAS is a pre-requisite for all other SAS courses.

Two two-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):

- **Monday, September 14: 2:00-4:00 p.m. Instructor: Panu Sittiwong**
- **Tuesday, October 20: 3:00-5:00 p.m. Instructor: Phanit Laosirirat**

2. **Introduction to SAS on CMS** — This course is recommended for individuals who plan to use SAS on the academic HDS IBM-compatible mainframe. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS datasets on a minidisk, importing/exporting SAS datasets to and from other SAS systems, and preparing and submitting SAS jobs to OS/MVS. SAS is used interactively in this course. Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.

Two one-hour sessions will be held in the Science Library (ACS General Access Lab, ISB 110):

- **Monday, September 21: 3:00-4:00 p.m.**

Instructor: Panu Sittiwong

- **Wednesday, October 21: 4:00-5:00 p.m.**

Instructor: Panu Sittiwong

3. **Introduction to SAS on UNIX** — This course is recommended for individuals who plan to use SAS on the Solbourne minicomputer. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS datasets on a minidisk, importing/exporting SAS datasets to and from other SAS systems, and preparing and submitting SAS jobs to OS/MVS. This class will utilize the SAS menus under the X Window System. **Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.**

A one-hour session will be held in the Science Library (ACS General Access Lab, ISB 110):

- **Monday, October 19: 4:00-5:00 p.m.**

Instructor: Panu Sittiwong

4. **Introduction to SAS PC** — This course covers the basics of using SAS PC, Version 6.04, for IBM and compatible PCs. Topics covered include using the SAS Display Manager, loading files, selecting variables and running statistical analyses. Emphasis will be placed on running SAS in interactive mode. **Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.**

Two one-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):

- **Wednesday, September 16: 4:00-5:00 p.m.**

Instructor: Phanit Laosirirat

- **Thursday, October 22: 4:00-5:00 p.m.**

Instructor: Phanit Laosirirat

5. **Introduction to SPSS** — This course is recommended for individuals who plan to incorporate statistical analyses into their research and want to use SPSS on the academic HDS IBM-compatible mainframe. It emphasizes using SPSS from the CMS operating system. Topics covered include creating SPSS programs, reading data into SPSS programs, saving SAS

Back to School

datasets on a minidisk, importing/exporting SPSS datasets to and from other SPSS systems, and preparing and submitting SPSS jobs to OS/MVS. SPSS is used interactively in this course.

Two three-hour sessions to be held in the Science Library(ACS General Access Lab, ISB 110):

- Thursday, September 24: 1:00-4:00 p.m. Instructor: James Yarbrough
- Monday, October 26: 2:00-5:00 p.m. Instructor: James Yarbrough

6. **Introduction to SPSS PC +** — This course covers the basics of using SPSS PC +, Version 4.0.1, for IBM and compatible PCs. Topics covered include using the menu and help interfaces in REVIEW, loading files, selecting variables, and running statistical analyses. Emphasis will be placed on building files for execution interactively. **Prior knowledge of the SPSS command language or attendance in the Intro. to SPSS course is required.**

Two three-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):

- Tuesday, September 29: 2:00-5:00 p.m. Instructor: Phanit Laosirirat
- Tuesday, October 27: 2:00-5:00 p.m. Instructor: Phanit Laosirirat

7. **Introduction to SAS/Graph** — This course is recommended for individuals who plan to incorporate statistical analyses into their research and want to display their results graphically. **Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.**

Two two-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):

- Wednesday, October 14: 3:00-5:00 p.m. Instructor: Panu Sittiwong

WIDE AREA NETWORK COURSES

1. **Introduction to Electronic Mail and Discussion Groups on CMS** — This course will cover the basics of using CMS MAIL to send and receive electronic mail to both Internet and BITNET. The use of electronic mailing lists including BITNET LISTSERV will also be discussed. **Prior knowledge of CMS is required.**

A two-hour session, held in the Academic Computing Conference Room (ISB 123):

- Monday, October 5: 3:00-5:00 p.m. Instructor: Philip Baczewski

2. **Introduction to Electronic Mail and Discussion Groups on VAX/VMS** - This course will cover the basics of using VAX MAIL to send and receive electronic mail to both the Internet and BITNET. The use of electronic mailing lists including BITNET LISTSERV will be discussed. Using USENET newsgroups via the ANU News program on the VAX will also be explored. **Prior knowledge of VAX/VMS is required.**

A two-hour session, held in the Academic Computing Conference Room (ISB 123):

- Tuesday, October 13: 3:00-5:00 p.m. Instructor: Billy Barron

3. **Introduction to Internet Tools and Techniques** - The Internet is a collection of related computer networks that link almost a million computers throughout the world. This course will cover file transfer, remote login, use of online library catalogs at other universities, archie, HYTELNET, Gopher, and many other Internet topics **except** electronic mail. **Prior knowledge of at least one of the following interactive operating systems is required: VAX/VMS, CMS, UNIX, MS-DOS, MAC.**

A one and one-half-hour session, held in the Computing Center Conference Room (ISB 123):

- Thursday, October 15: 3:30-5:00 p.m. Instructor: Billy Barron

MICROCOMPUTER COURSES

1. **Introduction to Macintosh for Students** - This course is recommended for students who want to learn about Apple Macintosh computers.

A two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):

- Thursday, October 1: 2:00-4:00 p.m.
Instructor: Eriq Neale

2. **Introduction to WordPerfect 5.1 for Students** - Students who wish to use a word processing system to produce class papers and projects are encouraged to take this course. **Prior knowledge of basic DOS commands required. Bring one 5 1/4" low density formatted diskette. There is no difference between WP 5.1 and 5.0 at the introductory level. If you are comfortable with 5.0 do not take this class.**

A three-hour session, held in the Science Library (ACS General Access Lab, ISB 110):

- Thursday, October 8: 2:00-5:00 p.m.
Instructor: Sandy Franklin

3. **Introduction to Procomm Plus** - An overview of the Procomm communications package for Personal Computers or compatibles is presented for people who wish to access host systems from their PCs. Topics covered include setting communications and file transfer parameters, setting up and using Procomm's dialing directory, and connecting to UNT host computers through the local area network.

A one-hour session, held in the Chilton General Access Lab (Chilton 255):

- Tuesday, September 15: 3:00-4:00 p.m.
Instructor: Eriq Neale

4. **Introduction to DOS for Students** - This course is recommended for students who want to learn about using DOS on IBM PCs and compatibles.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):

- Tuesday, September 22: 2:00-4:00 p.m.
Instructor: Eriq Neale ■

Using the KERMIT File Transfer Program on UNT Host Systems

By Bahram Paiani, CMS Documentation and Training Assistant (Bahram@ccl.unt.edu)

Most of us here on the UNT campus use TCP/IP to transfer files back and forth between the mainframe or a minicomputer and our PC. But if you are using a modem to connect your PC to the academic mainframe (HDS 8083) or a minicomputer (VAX, SOL, etc.) system on campus and you want to transfer files, then you should know how to use the Kermit file transfer facility. Most host computers here at UNT support Kermit.

The following is the basic knowledge you need to use KERMIT easily and effectively. In order to transfer files between two points, both sides (the PC side and the other side) must use a common protocol (set of rules). We divide our discussion into two parts; the first part is for those who use PROCOMM to connect to a host system and the second part is for those who use MS-Kermit to communicate with a host system.

We use the CMS host system as an example here, but the process is basically the same on any other hosts on UNT campus.

If You're Using PROCOMM...

- ☐ **Sending file(s):** Suppose you are logged on CMS and you want to send a CMS file to your Personal Computer. Type **KERMIT** at the CMS Ready prompt. You will get a message like:

```
Kermit-CMS Version 4.2.2 XA
(91/07/18)
Enter ? for a list of valid commands

Kermit-CMS>
```

Please see Kermit on page 15.

The Network Connection

By Dr. Philip Baczewski, Assistant Director of Academic Computing
BITNET INFOREP (ac12@unt.edu)

*This column is a continuing feature of **Benchmarks** intended to present news and information on various aspects of wide area networks.*

Too Much Information!

The title says it all. If you have explored the world of electronic mailing lists, discussion groups, and journals, at some time you've probably thought (and possibly frantically yelled down the hallway for all of your colleagues to hear), "there's too much information!" There are currently over 1,600 USENET news groups (more if you count regional groups), over 2,500 BITNET listserv mailing lists, and over 100 electronic journals or newsletters. It's obvious that no one can read all of this information and still find time for trivialities such as eating and sleeping, but its gotten to the point that even keeping up with the news groups and mailing lists that are of interest can be quite a chore.

As the availability of electronic information increases, more techniques to manage that information are being developed. Indexing and retrieval techniques such as WAIS (Wide Area Information Servers) and network services and information access systems such as Gopher are examples of relatively new software approaches to this challenge. While these systems greatly help in the access to static information bases, the continuing task for most of us is managing access to the dynamic information that is bombarding us on a daily basis. "Smarter" mail programs and news readers may be the answer, but until such tools are available, we're on our own. What follows here are some simple tips which may help you in gleaning the most useful information from mailing lists and news groups.

The first rule of news reading is that unless the topic is one of most direct interest for you and unless you know that the posts are of consistently high quality, you will probably be best served by **not** reading each and every message posted. The tricky part, sometimes, is determining what messages you do wish to read. Many times you can tell by the subject of the message whether it will be of interest. There's a good chance, for example, that messages with subjects like "Subscribe me" or "Unsubscribe me" can be ignored or discarded immediately. Another piece of information to notice is whether the person posting the message or the site from which it originated has had a good record in your mind as to posting interesting or valuable information. If the subject and origin do not provide a definitive answer, then it still may be necessary to browse the message text itself. The object, however, is to spend as little time as possible weeding out messages you don't want to read in order to have more time to read the ones that are of interest.

The second rule of news reading: follow threads. If this sounds to you like advice to a tailor, perhaps a few words of definition are in order. A "thread" in the BBS and USENET news vernacular means a succession of messages on the same topic, usually containing the same subject line. If you find a particular message that is of interest, chances are good that subsequent replies to that message will also have information of interest. An additional advantage of following threads is that the discussion remains in the forefront of your mind, possibly encouraging a better overall comprehension of a set of messages. Some USENET news readers have

features which allow you to follow threads, however, this capability is not universal. If you are using a mail program to read BITNET or Internet mailing list messages, you may be able to employ a feature allowing you to select messages based upon subject content (RICE mail on VM/CMS and VMS mail on the VAX both have this ability - elm on the Solbourne has the capability to a lesser degree).

The third rule of news reading: when in doubt, search. Many news reader and mail programs allow you the capability, at some level, to search for a word or phrase. ANUNews on the VAX supports a search command which will scan messages within a selected news group for whatever string that you specify. nn on the Solbourne has a similar capability for scanning the subject of all messages when nn is invoked with the -s option. When you are reading a news group to find a particular item of information, a search function is invaluable.

Many times in applying the above three rules, you are at the mercy of the software tool that you are using. The above form a good criteria for evaluating such programs and hopefully the software writers will strengthen such features in future releases. One more general rule to be stated here is rather than personally subscribing, when possible, use a news reader to read BITNET and Internet mailing lists. News readers are generally more capable of displaying and manipulating large blocks of messages than mail programs. If you skip of few days of reading, it is usually easier to "catch up" on your messages. Your computer system manager also will be appreciative that you are not taking up valuable disk storage with reams of mailing list messages. If you think there's too much information...■

List of the Month

Each month we will highlight one BITNET, Internet, or USENET Special Interest Group (SIG) mailing list. This month's list...

Not all mailing lists are on esoteric computing or information processing topics. These days, the topics discussed are often a reflection of issues affecting our everyday lives. These days, there is no more ubiquitous issue than the presidential election.

The following lists are intended for the discussion of these candidates' 1992 campaigns for President. The lists will provide a forum for the exchange of ideas and information on each candidate's candidacy and campaign. Topics may include but are not limited to: issues, policy, organization, strategy, and appearances.

BUSH on **LISTSERV@MARIST.BITNET** or **LISTSERV@VM.MARIST.EDU** — George Bush's Presidential Campaign

Owner: Martha McConaghy (URMM@VM.MARIST.EDU).

CLINTON on **LISTSERV@MARIST.BITNET** or **LISTSERV@VM.MARIST.EDU** — Bill Clinton's Presidential Campaign

Owner: Lee Sakkas (URLS@MARISTC.BITNET).

PEROT on **LISTSERV@MARIST.BITNET** or **LISTSERV@VM.MARIST.EDU** — H. Ross Perot's Presidential Campaign

Owner: Charlie Murphy (URMC@MARISTC.BITNET).

*To subscribe to one of the above mailing lists send the following command via either an interactive message or as the first line of a mail message to the BITNET address **LISTSERV@MARIST**: **SUBSCRIBE listname yourname**, where "listname" is **BUSH**, **CLINTON**, or **PEROT** and "yourname" is your first and last name.*

Some USENET discussion groups to check out via ANU News on the VAX or nn on the Solbourne are **alt.politics.bush**, **alt.politics.clinton** and **alt.politics.elections** ■

Kermit continued from page 13.

Type **SEND filename filetype filemode** and hit <RETURN>. You will see the following:

Kermit-CMS ready to send.
Please escape to local kermit now to RECEIVE the file(s).

This basically means that in order for the Kermit-CMS to establish a file transfer process, it needs to *talk* to your communication program (in this case PROCOMM) using kermit protocol which fortunately PROCOMM supports.

Hit the <PgDn> key on your PC keyboard. You get a menu asking you to enter the protocol number you are using; choose the number 2 option and hit <RETURN>. If everything goes well you will get a menu that shows the file transfer process in action. After the sending process is completed, PROCOMM automatically returns you to your host kermit prompt.

- ❑ **Receiving file(s):** To receive a file onto your CMS system type **RECEIVE** at the KERMIT prompt and hit the <RETURN> key. Now to let your local communication program (PROCOMM) know that you are expecting it to send a file to your CMS machine, you need to hit the <PgUp> key on your PC keyboard. PROCOMM will prompt you with a small window; Type the file name and its path and hit <RETURN>. As soon as you hit the <RETURN> key the file transfer begins and you get a menu displaying the process. You will be put back at your host kermit prompt after the receive process is completed.

If You're Using MS-Kermit...

- ❑ **Sending file(s):** Type **SEND filename filetype filemode** at the CMS kermit prompt and hit <RETURN>. Type <Alt X> (hold down the <Alt> key and at the same time press <X>). Now type **RECEIVE** at the MS-kermit prompt to start the process. After the sending process is terminated you can get back to your host Kermit command line by typing **Connect** at the MS-Kermit prompt.
- ❑ **Receiving file(s):** Type **RECEIVE** at your CMS Kermit prompt and hit <RETURN>. Press <Alt X> to go to the MS-Kermit prompt and type **SEND** followed with the complete file name and file path. As in sending files, after the file transfer is finished type **CONNECT** to get back to your CMS Kermit prompt.

To transfer multiple files you can use wild card characters (e.g., * or %). as explained in your CMS and MS-DOS documentation. For further information, please call Academic Computing Services at 565-2324 or come by ISB Room 119. ■

SAS Institute Implements Electronic Support Services

SAS Institute is now offering two electronic support services for people who use SAS software. These services are (1) TSNEWS-L, a mail file and list maintained by SAS Technical Support and (2) an Anonymous FTP service to download SAS Notes, executable modules, technical notes and upload information requested by SAS Technical Support. Consult the article at right for access information. Contact Panu Sittiwong in ACS (565-2324) for further help. ■

ACS Offers Workstation Consulting

By Billy Barron, VAX/UNIX Services Manager (billy@unt.edu)

The VAX/UNIX Services division of Academic Computing Services offers many user support services related to most popular brands of Sun/Solbourne and VMS workstations as well as X-Terminals. Other brands of UNIX workstations will be consulted on as time permits. For the exact list of hardware and software supported, see the "UNT Supported Computing Items List" or contact Academic Computing Services (ACS).

Before the purchase of a workstation, ACS will be happy to help you select the model and configuration of workstation that best fits your needs. The University has a few software site license contracts in place that can save you money. Also, we can interface with the vendor for you. Finally, we are willing to assist in the writing of bid specifications. After installation, ACS will provide software support on some software packages especially in the SPARC environment. ■

Accessing SAS Support Services

You can subscribe to TSNEWS-L, described in the box to the left, by sending electronic mail to **LISTSERV@VM.SAS.COM** with **SUBSCRIBE TSNEWS-L your name** in the body of the message.

To access the SAS Anonymous FTP service, connect to **ftp.sas.com**. If you have any questions, contact ACS. ■

Computing Center Staff Activities

Academic Computing Services

Billy Barron, VAX/UNIX Services Manager, attended GopherCon 92 August 12-13 in Ann Arbor, Michigan. Gopher is a document delivery system that is being tested here at UNT. While at the conference, Barron made two presentations. The first was on "Resource Discovery in Gopher" and the second was on "Organizing Gopher Space by Subject." ■

UNT Computing Committees

By Susan Pierce, IRC De Facto Standards Committee Chair

At the January '92 IRC meeting, the De Facto Standards Committee presented a draft list of UNT computing committees. It is hoped that the publication of such information in *Benchmarks*, and/or other appropriate documents, will:

- help to increase awareness among the UNT community that these particular issues are actually being addressed; and, further,
- provide a list of contact people for use by anyone who desires to provide input or receive information about the activities of specific committees.

Please see the Committees chart on page 18.



Information Resources Council News

Minutes provided by Sue Harrison, Recording Secretary

IRC Regular Voting Members: Ray Vondran, Library and Information Sciences (Chair); Dave Barker, TCOM Information Resources Council; Cengiz Capan, College of Business; Carolyn Cunningham, Student Affairs; Steve Farish, College of Music; Chuck Fuller, Fiscal Affairs; Don Grose, Libraries; Paul Schlieve, College of Education; Steve Miller, Administrative Affairs; Don Palermo, Academic Administration; David Hartman, Schools of Community Services and Merchandising and Hospitality Management; Jean Schaaake, College of Arts and Sciences; Neal Tate, Faculty Senate. **IRC Ex-officio Non-voting Members:** Bill Buntain, Computing Center; Jim Curry, Microcomputer Maintenance Shop; Paul Gandel, Computing Center; Richard Harris, Computing Center; Coy Hoggard, Computing Center; Tom Newell, Telecommunications.

Tuesday, July 21, 1992

Richard Harris introduced Paul Gandel, the new Senior Director of Academic Computing for the Computing Center.

Bill Buntain reported that the Internal Network Wiring Project has been approved by the Board of Regents, and a blanket order for the Cabletron equipment is currently out for bids. Buntain explained that Telecommunications will subcontract the actual wiring and supervise that portion of the project, while the Computing Center will be installing the equipment.

Buntain reported that the Task Force had met and decided that in order to prepare for Netware 4.0 and to review the University's funding of participation in Novell's Educational Account Purchase Program, the task force decided to request a survey completed by department LAN managers. He distributed a draft of the survey instrument and in response to a request for approval, the Council agreed to support them.

In response to a question regarding the Sytek Broadband network, Buntain explained that they hope to phase it out as the services previously provided by Sytek become available on the Ethernet.

Cengiz Capan suggested that priority needs to be given to the increasing need for dial-in metro lines for use by students off campus. Buntain answered that the need for evaluation for dial-in strategies was recognized and that a committee had been formed to work on proposals, but that because of the need to commit resources to upgrading the SNA gateway, the dial-in issue has been put on a "back-burner." Buntain also indicated that since the SNA gateway evaluation was complete and a number of other issues requiring the attention of his staff had been resolved that work on dial-in capabilities would begin again soon.

The Unix Advisory Committee's proposal, which reads as follows, was adopted by the Council by a unanimous vote:

"The Solbourne system's primary purpose is to provide a high-performance computing environment for research computing. Faculty, staff, and graduate students may be granted a User-ID on this system. Undergraduate User-IDs and

Back to School

Classroom User-ID sets may also be allocated for the Solbourne, however, the VAX/UNIX Systems Manager will periodically review class and undergraduate usage in order to maintain system performance consistent with the purpose stated above."

Richard Harris asked for comments or questions on the FY93 HEAF budget that had been distributed at the May 16 meeting. Harris pointed out that he had received input from the A.I.S. Users Group and the UNIX Advisory Committee prior to the finalization of the budget. He noted that \$625,000 had been provided for the network building wiring project and \$600,000 provided for the purchase of the administrative mainframe. During discussion, concern was expressed that there is not enough money set aside for dial-in access development. It was suggested that the IRC meet once a year to go over a list of suggested projects and set prioritized expenditures. Following discussion the budget was approved as presented.

Chairman Vondran reported that he had received a memo from Jack Davis which stated that Davis had met with the appropriate persons to try to finalize some additional space for Micro-computer Maintenance in the GAB. Davis said he would follow up and let Dr. Vondran know when there was resolution on this issue.

Richard Harris reported that at the IRC Steering Committee meeting, issues they dealt with centered around which buildings would be on phase IV of the network wiring project.

Harris introduced Susan Pierce as his new Assistant for Budgeting and Planning. Pierce stated that she would be working on the DIR Reports and distributed a chart showing the reporting process cycle. She also distributed an outline of the Report Structure for the UNT Initial Operating Plan on which she highlighted areas in the process where input will be needed from de-

partments. Pierce stated that she plans to ask the Vice Presidents for their cooperation in obtaining input from their areas for the Strategic Planning process.

Cengiz Capan reported on the last GALC meeting at which a subcommittee was appointed to study the use of one room in the Chilton Hall General Access Lab for a faculty/staff training center. The subcommittee has prepared a final draft of a proposal to use the facility as a pilot project for one year, which Capan distributed. The proposal has been discussed with Vice Presidents Pole and Diebel because additional funds will have to be made available.

A motion was approved to accept the GALC subcommittee's proposal to set up a faculty/staff training center as a pilot project for one year, in one room of the General Access Lab in Chilton Hall. Chairman Vondran praised the GALC for the tremendous work it has done during this fiscal year.

Susan Pierce reported on recent De-facto Standards Committee meetings and distributed a list of currently active UNT committees that deal with computing issues. The Committee has recommended acceptance of the following items on the Supported Computing Items List (SCIL):

Cabletron E2112 network card for workstations

NE2000T network card for file servers

NE3200 network card for file servers

8-gigabyte tape drive and associated software (Cheyenne's ArcServe, Cheyenne's ArcSolo and Novell's SBACKUP)

Adaptec 1542B SCSI controller

Adaptec 1742A SCSI controller

Pierce said she would send members an addendum to the current SCIL showing the additional items. The

Committee continues to look at new items to add.

Chairman Vondran stated that Susan Pierce will not serve on the IRC in the next fiscal year because of her change in employment position. He thanked her for the work she has done on the IRC.

Paul Schlieve suggested that the IRC look at the membership of the De Facto Standards committee. Vondran agreed and stated that the subcommittee structure in general will be considered by the Strategic Planning Committee.

The issue of abuse of the electronic mail system was discussed. Paul Schlieve pointed out that there is a policy already in place regarding appropriate use of State property, but that a document needs to be prepared giving specific guidelines to E-mail users as to what is appropriate use of the electronic mail system. Schlieve stated that the E-Mail Task Force will look at the possibility of an electronic bulletin board. Paul Gandel stated that the Computing Center is looking into a bulletin board that would be accessible from all computer platforms.

It was agreed that IRC meetings will continue to be held on the third Tuesday of each month in the next academic year, with two exceptions, as noted below:

- ☐ September 15, 1992
- ☐ October 20, 1992
- ☐ November 17, 1992
- ☐ December 15, 1992
- ☐ January 26, 1993*
- ☐ February 16, 1993
- ☐ March 23, 1993*
- ☐ April 27, 1993*
- ☐ May 18, 1993
- ☐ June 15, 1993
- ☐ July 20, 1993

*Fourth Tuesday of the month ■

Currently Active UNT Committees Dealing With Computing Issues

Source: IRC De Facto Standards Committee

Draft: July 16, 1992

University Committees and Task Forces		
Committee Name, Chair or Contact	Charge or Mission	Reports to
Degree Audit Task Force, Jack Davis	The Degree Audit Task Force was given the original charge to address the following issues in relation to the establishment of an Automated Advising/Degree Audit System for UNT: (1) Develop specific system goals and objectives; (2) Develop detailed system requirements; (3) Address the issue of security and management of the system; (4) Examine hardware options - mainframe vs. distributed design; (5) Assess SIMS software as a support system; (6) Prepare a cost benefit analysis; (7) Develop an implementation plan.	Provost
E-Mail Task Force, Paul Schlieve	Evaluate, recommend, and implement a university-wide electronic mail system. An early recommendation on the minimum and desirable short- and long-term Computing Center project staffing support is also needed.	Provost
Faculty Computing Advisory Committee, Neal Tate	To provide advice to the Faculty Senate representative to the IRC. To that end, this committee shall study the computing needs of the university faculty and shall make recommendations regarding these needs to the Faculty Senate representative to the IRC.	Faculty Senate representative to IRC
Fiscal Administrative Planning Committee, Ginny Anderson	Review current fiscal administrative systems, policies and procedures with a goal to make administrative processes more efficient, better serve the customers, eliminate unnecessary approvals, utilize technology, to simplify the processes from a user standpoint and provide user-defined ad hoc reporting capabilities that can be implemented with a minimum amount of programmer assistance. Chart a course for UNT and TCOM to take in order to implement the improvements.	VP, Fiscal Affairs

Back to School

Committee Name, Chair or Contact	Charge or Mission	Reports to
Library Committee, Donald Grose	Function as an advisory body with respect to library policies, programs, resources and facilities; act as a liaison between the library staff and academic community including university administration, faculty, students and other clientele; and function in support and promotion of library needs and usage.	Faculty Senate
Task Force on Instructional Technology, Rogers Redding	To develop a strategic plan to ensure that our instruction in all its dimensions takes advantage of state-of-the-art technologies, and that UNT is second to none in the sophistication with which we teach and learn.	Provost
Information Resources Council Standing Subcommittees		
Computer Resources Security Committee, Neal Tate	To determine ways to implement the existing security policy and standards.	IRC
De Facto Standards, Susan Pierce	Deal with the review process for supported items as well as with establishment of other de facto standards for computing and networking.	IRC
General Access Computer Labs, Cengiz Capan	(1) Set policies and oversee operational procedures for the General Access Labs. (2) Establish a funding cycle, create standards/guidelines for the expenditures, set up accounting procedures, and create reporting and review guidelines. (3) Create a planning procedure for the General Access Labs' environment where the progress or lack of progress in these areas is monitored, new requirements compiled, future plans developed, and the current policies and operational procedures updated.	IRC
Task Force on Communication Networks, Paul Schlieve	To work on planning in the area of Local Area Network issues and needs. Will look at the communications backbone on campus and how it relates to micro- and mainframe traffic; as well as Phase II of the ethernet wiring of campus buildings. Will bring a plan to the Strategic Planning committee.	IRC
Microcomputer & Data Integrity, Jim Curry	(1) Define procedures for appointment of data guardians; (2) take steps to expand training capabilities related to data integrity; (3) evaluate and choose appropriate backup and virus prevention applications.	IRC

Back to School

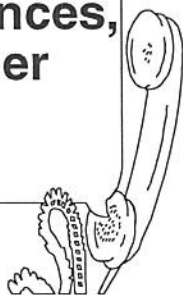
Committee Name, Chair or Contact	Charge or Mission	Reports to
Strategic Planning Committee, Richard Harris	The primary charge of the Information Resources Council Strategic Planning Committee (IRCSPC) is the preparation of the University of North Texas Strategic Plan for Information Resources Management. Additional responsibilities include general oversight of the strategic plan implementation and review of proposed IRC agenda items.	IRC
UNIX Advisory Committee, Philip Baczewski	This committee acts in an advisory capacity to determine the most appropriate strategy for meeting the computing needs of the university academic community as they relate to UNIX computing.	IRC
College-Wide Computing Committees		
Arts & Sciences, Jean Schaake Business Administration, Cengiz Capan Community Service, Merchandising & Hospitality Management, Music; Paul Dworak/Susan Pierce Education, Paul Schlieve Library Science, June Lester	Composed of representatives from the particular college or school, these committees oversee the development and operation of their general access computer lab(s), as well as faculty/staff network computing. Plans, budgets, hardware and software purchases, policies, and problems are discussed. The chairs of each of these committees serve on the General Access Lab Committee.	IRC's General Access Lab Committee
Ad Hoc and Working Committees		
Dial-In Novell Network Access, Randy Bell	The Dial-In Committee is charged with identifying, evaluating and procuring a secure and reliable communications server allowing students, faculty and staff remote access to the Novell/Campus Area Network.	Computing Center
Network Wiring Group, Bill Buntain	The Network Wiring Group coordinates data communications network projects involving the campus-wide fiber optics backbone, internal building wiring and related communications equipment. The group works with departments to define appropriate network configurations to interface with the campus-wide network.	Computing Center
SNA Gateway, Randy Bell	Our original charge was to find an expandable replacement for the existing SNA gateway which would provide security, reliability, performance and support for as many desktop computing platforms as possible. Manageability of gateway sessions with the mainframe, at the gateway, was another important criteria.	Computing Center

Back to School

Committee Name, Chair or Contact	Charge or Mission	Reports to
User Groups		
Access Control, Chuck Fuller	The Access Control Users Group was formed to keep the various users of the system informed of the current status, enhancements, and problems related to the system. The organization also serves as a forum to hear the needs, complaints and desires of the users, and to transmit those to the operators of the system and ultimately to the manufacturer.	N/A
Administrative Information System (AIS), Coy Hoggard	The Administrative Information Systems (AIS) User's Group exists to improve understanding, cooperation, and coordination between centrally supported administrative information system users, resource support personnel, and the University administration to ensure that administrative information systems are developed, implemented, and maintained across organizational lines in the most appropriate manner possible within financial, staff, and space resource availability.	N/A
Novell Network Managers, Arne Almquist	Mission: (1) to provide potential UNT network managers consulting services limited to networking concepts, network-related job tasks, and generic hardware requirements; (2) to provide a forum for existing members to discuss topics such as networking concepts, installation, maintenance and operation, and enhancement; (3) to provide a forum for network managers to discuss issues such as user participation, training and support; and (4) to encourage creative uses of UNT's inter-network whereby end users might benefit from other networks in addition to their own departmental/divisional network.	N/A
Student Information Management System (SIMS), Joneel Harris	The Student Information Management System (SIMS) Committee exists for the purpose of ensuring that administrative computing related to academic and student database support systems designed for specific end user customers are developed and maintained across organizational lines in the most efficient and cost-effective manner possible given fiscal, staff, and computing resource availability.	N/A
WordPerfect, Sandy Franklin	To provide an informal forum for software users to get together and share information, ask questions, and learn about special features.	N/A

Back to School

Calls For Papers, Conferences, And Other Items of Interest



We have received the following "calls" and announcements from various organizations.

Call for Papers, Proposals

- **STATE 93, Fourth Annual Conference on Technology and Teacher Education, March 17-20, 1993, San Diego, California** — Papers, and Posters/Demonstrations are being solicited for this conference sponsored by Association for the Advancement of Computing in Education (AACE). The theme of the conference is

"Technology Across the Curriculum." Deadline for submission of papers is October 2, 1992. For further information contact STATE 93, AACE, P.O. Box 2966, Charlottesville, VA 22902 (AACE@Virginia.edu) (Voice:804-973-3987).

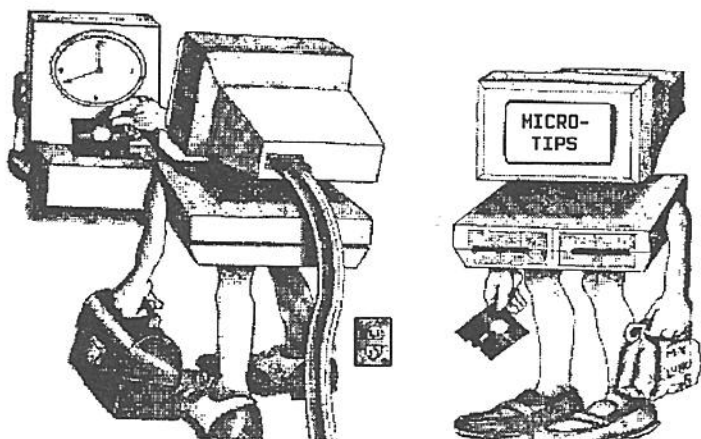
Workshops, Conferences, and Seminars

- **Sixth International Conference on Symbolic and Logical Computing (ICEBOL6), October 15-16, 1992, Dakota State University, Madison, South Dakota** — Computer programming for all kinds of non-numeric applications will be the focus of presentations at ICEBOL6. Conference topics include parsing, conversion of text to hypertext, parallel algorithms for text processing, machine translation, natural-language query processing, artificial intelligence and backtracking, and analysis of the language of Victor Borge. Contact Eric Johnson, 114 Beadle Hall, Dakota State University, Madison, SD 57042 (eric@sdnet.bitnet) (Voice: 605-256-5270).
- **CIKM-92: First International Conference on Information and Knowledge Management, November 8-11, 1992, Baltimore, Maryland** — CIKM-92 provides an international forum for the presentation and discussion of research on the management of information and knowledge. The conference will cover the integration of database technology, knowledge representation and reasoning, information retrieval, and techniques for locating and accessing relevant data and knowledge in very large, distributed information systems. For more information send E-mail to CIKM-INFO@CS.UMBC.EDU to receive an automatic reply containing registration forms and an advance program. General inquiries can be made to CIKM-92, Computer Science Dept., University of Maryland Baltimore County, Baltimore MD 21228-5398 (cikm@cs.umbc.edu) (Voice: 410-455-3000).
- **The Second Annual Florida Adaptive Technology Impact Conference (FATIC), February 1-2, 1993, Tampa, Florida** — This conference will focus on the latest uses of adaptive and assistive technology in curriculum integration and vocational transition. Presentations topics will include sensory impairments, physical impairments, mental impairments, speech and language impairments, specific learning disabilities, emotional impairments, at-risk children, and vocational rehabilitation. A hands-on lab will be available for participants to experience the latest in adaptive and assistive hardware and software. For more information contact David Brittain (brittain@firvix.bitnet) (Voice: 904-488-0980).

- **The 1993 International Conference on Humor and Laughter, September 30 - October 3, 1993, the Miami University Dolibois Center, Luxembourg** — For more information contact Larry Sherman (LS8CEDPF@MIAMIU) or Don L.F. Nilsen, Executive Secretary, International Society for Humor Studies (ATDFN @ASUACAD.BITNET) (Voice: 602-965-7592).

Awards, Competitions

- **International Open Competition for Essays on the Use of Telecommunication in Education and Training** — The Education Department of the State of Geneva is sponsoring a competition for written essays that describe original design scenarios for the use of new technologies in an educational and training session. Registration deadline is **September 30, 1992**. Grand Prize: Round-the-world airline tickets. Contact the Centre Informatique Pédagogique, Case Postale 172, 1211 Geneva 3, Switzerland (Voice: 022/3180530) for more information.
- **Special Research Award for the best qualitative research report on education communications and technology** — The ECT Foundation, in coordination with the Research and Theory Division of the Association for Educational Communications and Technology is offering this \$500 cash award. Submitted papers must report original, unpublished qualitative research investigation. Qualitative theories and methods may be applied from areas such as cultural anthropology, history, social psychology and sociology. Further information and entry forms may be obtained from Special Research Award, c/o AECT Awards Program, 1025 Vermont Ave., NW, Suite 820, Washington, DC, 20005 (Voice: 202-347-7834)■



*This column is intended to serve as a forum for sharing useful tips on making more productive use of microcomputers. If you have a tip that you feel may be of use to campus users, submit it to the **Benchmarks** Editor for possible inclusion in a future issue.*

Weird Keyboard Problems: Hardware or Software?

By Mark Thacker, CC1 LAN Manager, Network and Microcomputer Support (Thacker@cc1.unt.edu)

*This article is reprinted from **NetMan**, The Newsletter of the UNT Network Managers Group (Vol. 3, No. 5, August 1992).*

The Article

In the August 1992 issue of *BYTE* Magazine, Mark J. Minasi wrote an article describing a problem with MS-DOS 5.0 and the "A20 Gate." This article makes a lot of claims about incompatibilities between DOS 5.0 and other programs because of the way that DOS handles high memory. The article has the potential to cause a lot of people to believe that their hardware is flaky or needs to be replaced by Micro Maintenance. However, it is just not so.

The article claims that the A20 keyboard handler gate can not handle keyboard requests when MS-DOS 5.0 loads itself into the high memory area (HMA). Supposedly, the gate is opening and closing so rapidly that it loses track of its primary function, to service requests for key presses. As a result, a user sees random keystrokes and keys appear to be "shifted" as if someone were holding the <SHIFT> key down.

The article recommends replacing the BIOS on your machine or changing certain parameters when you load QEMM.SYS or HIMEM.SYS for memory management. While these solutions may work on certain machines, it does not appear to really be the solution to the real problem.

The Problem

I quickly wrote up a summary of the article and intended to print it here. However, I decided to check with Jim Curry of Micro Maintenance for a double check on the validity of the article.

We shortly discovered that the "A20 Problem" doesn't exist! That is, we could not find any proof of the author's claim that the A20 Gate was rapidly opening and closing. Logic probe tests revealed that the A20 Gate was constantly either open or closed. Hence, the author's fixes probably won't make any difference at all if you are having a keyboard problem.

The Real Problem

The real problem appears to be in the application itself. That is, if you notice problems with WordPerfect, your first step should be to try and fix the problem within WordPerfect. Even though it is a major software package, WordPerfect is hardly bug free and has had keyboard problems in the past.

WordPerfect and other applications normally have a way for you to change their keyboard handling. In WordPerfect's case, supplying a /NK on the command line will let the hardware rather than the software handle keyboard I/O. Each application is different, but try to find a software solution first before pointing a finger to the hardware.

We can conclude that, while there may be SOME problems with SOME machines and the way they handle the A20 gate, the phantom "A20 Gate" problem is not the cause of most of our keyboard problems. If you are having problems, check with your local network guru, then check with NMS Applications Support at 565-2316. If the product that you are using is an unsupported item (read MS-Windows etc...), check with the manufacturer. ■



Virus Update

Compiled by Claudia Lynch, *Benchmarks*
Editor (BITNET: AS04@UNTVMI)

The following information comes from *virus-l@leigh.edu* and *UNT VAX News*.

General

- **Your questions answered** — A FAQ (Frequently Asked Questions) document and all of the back-issues of the VIRUS-L digest are available via anonymous FTP on cert.org (192.88.209.5).
- **New "computer crime" book** — *Approaching Zero: Data Crime and the Computer Underworld* by Bryan Clough and Paul Mungo, Faber and Faber (ISBN: 0-571-16546-X). Said to be very readable.

IBM and Compatible PCs

- **New Version of F-PROT** — F-PROT 2.04a, the latest release of Fridrik Skulason's antiviral software is now available. This version fixes some bugs that showed up in version 2.04.
UNT has a site license for F-PROT. To acquire the latest release, you can:
 - Anonymous FTP to ftp.unt.edu. GET the file **fp204.exe** in the pub/antivirus/ibm directory.

- Request the software from Microcomputer Support at 565-2316 if you are faculty or staff.
- Go to the ACS General Access Lab in ISB 110 and copy F-PROT onto your own diskettes.
- **F-PROT 2.04b and more** — F-PROT 2.04b was released by Fridrik Skulason (F-PROT's author), but it was never intended to be in general circulation. 2.04c is due to be out soon, but may be renamed to 2.05.
- **New Version of the Jerusalem virus found in Brazil** — This virus can be detected by F-PROT, but not by McAfee's Scan93 nor Virx version 2.3.
- **New "Vengeance" virus posted to Fidonet** — A poster who identified himself as "Richard Head" sent a message to the Fidonet VIRUS_INFO discussion area that included a "DEBUG script." This script is a set of commands which will instruct the DEBUG program shipped with every copy of MS-DOS to make a copy of the virus. Robert Slade (rslade@cue.bc.ca) states, in VIRUS-L (Vol. 5: Issue 142):

The fact that it was published on Fidonet means that many "virus-writer-wannabes" around the world will be able to make copies and release them locally.

The poster states that SCAN version 86 is unable to find it: F-PROT 2.04B identifies it as a Vienna variant, SCAN 95 identifies it as

"Parasite," TBScan 4.1 identifies it as suspect through the "heuristic" analysis. (HTScan 1.18 with VSIG9207 and VIRx 2.3 do not identify it). Those who do not have these scanners can check programs with a file viewer for the words "Vengeance" and "SKISM/Phalcon" near the end of the file.

- **Waldo message not a virus** — Some people have been noting an error message from the Windows version of CorelDraw that appeared to be a virus. This is not the case, and the manufacturer should be contacted for a patch that will keep the message from appearing.
- **MS-DOS 6.0** — Rumor has it that MS-DOS 6.0 will include diskcompression and antivirus utilities as well as some popular backup and defragmentation utilities from other companies ...

Macintosh

- **Canadian charged with planting Aldus computer virus** — According to an Associated Press "wire" that was posted to VIRUS-L (Vol. 5: Issue 142), former Canadian computer magazine publisher Richard Brandow has been accused of planting a computer virus that tainted thousands of copies of Aldus Corp. software in 1988.

Brandow supposedly created a virus that flashed a message on computer screens that wished peace to "all Macintosh users around the world." Brandow claimed the message was designed to educate the public to the danger of viruses, and included his name in the message so he could be contacted.

The virus cost Aldus \$7,000 when it had to recall 5,000 of Freehand and replace another 5,000 copies in inventory. This is thought to be the first instance of a virus tainting commercial software. ■

WordPerfect User's Group

The WordPerfect User's group will continue to meet throughout the fall semester. The schedules and agendas of the fall meetings will be announced in *Benchmarks* as soon as they are known. If you have any questions about the group, contact Sandy Franklin, Network and Microcomputer Support (565-2324). ■

VAXCLUSTER USAGE STATISTICS

June Top Ten Programs: CPU Time Used

Program	Description	CPU Time	Percent of Total
1. GAUSSIAN	Molecular Modelling	5 14:06:59.82	40.9
2. NEWS	ANU News Utility	1 18:11:32.45	12.9
3. DEFRAG	Disk Optimizer	1 13:09:12.13	11.3
4. User programs	Compiled Programs	1 08:05:26.26	9.8
5. MOPAC	Quantum Mechanics	1 14:37:25.73	4.5
6. MAIL_SERVER	VMS Mail Server	0 07:49:12.58	2.4
7. LOGINOUT	User Login	0 07:12:13.89	2.2
8. MAIL	VMS Mail Utility	0 06:50:27.78	2.1
9. BACKUP	Disk Backups	0 06:45:07.19	2.1
10. XZZZY	Chat Utility	0 03:26:33.60	1.1
Total		13 15:50:48.25	

July Top Ten Programs: CPU Time Used

Program	Description	CPU Time	Percent of Total
1. GAUSSIAN	Molecular Modelling	3 20:38:22.88	29.6
2. DEFRAG	Disk Optimizer	2 05:49:38.28	17.2
3. User programs	Compiled Programs	2 04:18:55.50	16.7
4. NEWS	ANU News Utility	1 08:56:29.93	10.5
5. MAIL_SERVER	VMS Mail Server	0 12:04:31.08	3.9
6. BACKUP	Disk Backups	0 08:56:50.38	2.9
7. LOGINOUT	User Login	0 06:40:28.75	2.1
8. MAIL	VMS Mail Utility	0 06:29:19.70	2.1
9. ADA	ADA Compiler	0 05:25:53.92	1.7
10. BN_GATEWAY	BITNET Mail Gateway	0 03:46:01.06	1.2
Total		13 00:47:55.39	

VAX/UNIX NEWS

VAX

- **HYTELNET Upgraded to 6.2** — HYTELNET 6.2 is now available. It contains more information as usual. However, in this version, the directory organization changed somewhat. The new organization will hopefully allow you to find information even quicker.
- **ANU 6.1A4** — We have just upgraded ANU to version 6.1A4 from 6.0-3. Though 6.1A4 is an Alpha release of the software, we have tested it and found only a couple of problems and they are pretty esoteric. On the other hand, 6.1A4

is about 40% quicker, which will greatly help VAX responsiveness in general as ANU is one of the programs that uses a lot of system resources.

The problems only lie with users who use the /RCFILTER, /RCORDER, or /FASTLOAD options. If you are using /RCFILTER or /RCORDER, use ANU 6.0-3, which can be run by typing **OLDANU** (Don't use /FASTLOAD on either version). We are working on attempting to fix these problems.

If you have ANY new problems, please send mail to OPERATOR or post to UNT.NEWS.DISCUSSION immediately. If it turns out that there are some unexpected problems, we may temporarily go back to 6.0-3 as the default until we resolve them.

SOLBOURNE

- **GNU gcc-2.2.2** — The GNU Project C/C++/Objective-C compiler version 2.2.2 has been installed. This package represents a fundamental change from previous implementations in that all three of these languages are bundled together. The extension on the filename indicates how the source code should be compiled. See **man gcc** for more details.

The C++ part of the compiler, which can be called explicitly with "g++", is closely similar to AT&T C++ 3.0. That is, templates are supported. However, several bugs still exist in managing this feature. Known areas of possible difficulty include, but are not limited to:

- o The inability to declare "friend" functions within a template class.
- o Methods declared within a template class cannot contain default parameter values.
- o Non-template classes nested within a template class seem to have

difficulty with externally defined methods.

The C++ library, `libg++`, must be explicitly linked in whenever any of the C++ header files are used. To do this, supply `-lg++` as one of the final parameters to the compilation command, such as: `gcc test.C -lg++`. This also applies when including the header file `<iostream.h>`.

`libg++` comes very close to complying with the `iostream` standard as set forth by AT&T. To date, the only shortcoming detected involves the method "setw". It appears that this has not been implemented yet.

The support for Objective-C is very limited at this time. It appears that the compiler can handle this language but that none of the necessary libraries are present.

- ❑ **NetFind 3.0 Installed** — The NetFind utility that finds E-mail addresses has been upgraded to version 3.0. The major benefit is that it now has twice as much information about the Internet available in its database.
- ❑ **Telnet Dropping Characters** — We have noticed a problem with Telnet from Sol to another system dropping characters when the user is on the Sytek LAN. The work around for the problem is to hit `<CTRL-]>` and then type `toggle localflow` at the `telnet>` prompt. This work around may work for other UNIX systems on campus also.
- ❑ **New 2.7GB Disk Drive** — A new 2.7GB high speed IPI disk drive was installed the week of July 15. ■

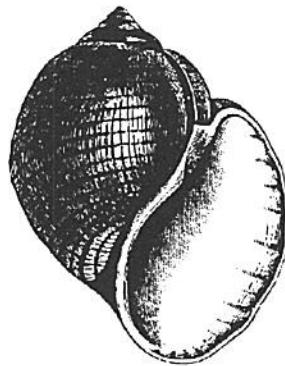
SOLBOURNE USAGE STATISTICS

June Top Ten Programs: CPU Time Used

Program	Description	CPU Minutes	Percent of Total
1. g90	Gaussian 90	54833.1	61.3
2. UserPgm	User Programs	17304.6	19.3
3. sas	Statistical Package	14584.7	16.3
4. find	File Locator Utility	525.9	0.6
5. irod	Internet relay Chat Daemon	416.5	0.5
6. update	Filesystem sync	204.8	0.2
7. sml	Standard Meta Language	188.8	0.2
8. gopher	Gopher Information Service	134.0	0.1
9. perl	Perl Language Interpreter	79.9	0.1
10. nn	USENET Newsreader	78.1	0.1
Total		89516.8	

July Top Ten Programs: CPU Time Used

Program	Description	CPU Minutes	Percent of Total
1. UserPgm	User Programs	28110.5	60.8
2. sas	Statistical Package	7937.4	17.2
3. g90	Gaussian 90	7707.2	16.7
4. find	File Locator Utility	473.7	1.0
5. less	File Lister	219.9	0.5
6. sml	Standard Meta Language	149.3	0.3
7. update	Filesystem sync	129.2	0.3
8. emacs	User Program	92.4	0.2
9. nn	USENET Newsreader	91.3	0.2
10. tcsh	User Program	64.0	0.1
Total		46170.5	



The UNIX Shell

By Marc St.-Gil, UNIX Systems Administrator (mstgil@unt.edu)

First Time User Information

This is an edited version of an article that appeared in the September 1991 issue of Benchmarks (vol. 12, no.7)

Hello! And welcome back to The UNIX Shell. In this month's column I am going to discuss first time user information.

The first thing you are going to need to know as a new user of Sol, Academic Computing Services Solbourne UNIX system, is how to use the information on your User-Id Assignment Notice to

VAX/UNIX SYSTEMS

log in to the system once at the "login:" prompt. Although the information printed on the form is in uppercase letters, the actual information stored on Sol is in lowercase. Therefore if your User-ID Assignment Notice indicates that your User-ID is **IA00** and the password is **ABFD20**, you should enter **ia00** at the "login:" prompt and **abfd20** at the "password:" prompt. Once you have successfully logged in, take a moment to change your password. I highly recommend a password with a mix of letters, numbers, and other characters, but remember that only the first eight characters are used. One way to come up with a good password is to use the first letter of each word in a memo-

rable phrase. For example, the phrase "Four score and seven years ago, ..." might remind you of a password like "4s&7ya,". Similarly, "A stitch in time saves nine." might come out as "Asits9.". Now since these are published examples, *please don't use them*. It shouldn't be too difficult to come up with your own. The best phrases are those that have a comma or other punctuation in them that you can incorporate in to your password.

The next thing you should know about UNIX is that UNIX is "case sensitive." That means that UNIX differentiates between upper- and lowercase letters. Therefore the file named **test**, the file named **TEST**, and the file named **Test**

are all different files. This is one of the things about UNIX that is different from VAX/VMS and MS/PC-DOS which are "case insensitive."

Sol has two help programs installed. The first is a local utility called *help* written by one of our operators. Just type **help** to get in to the *help* command. The second is a somewhat enhanced version of the traditional UNIX *man* command. To use *man* type **man topic** where topic is the name of the topic you are interested in. For example, to get help on using the *man* command, type **man man**. If you need any further assistance, you may send E-mail to the operator account or call the system operator at 565-4161. ■

MAINFRAME TECHNICAL SERVICES

Mainframe Performance Statistics

June Top Ten OS/MVS Programs: Frequency Of Runs

Program	Description	# of Runs	% of Total
1. IEWL	Linkage Editor	3454	15.7
2. PGM=*.DD	Compiled Program	3453	15.7
3. IGYCRCTL	VS COBOL2 Compiler	3102	14.1
4. IEBGENER	IBM Utility	3097	14.1
5. SPCHLCOB	COBOL2 Report Writer	1421	6.5
6. LOADER	System Loader	1399	6.4
7. SASLPA	SAS Version 5.18	1116	5.1
8. SPSS	SPSS Version 4.0	841	3.8
9. CASMA001	Sort Utility	654	3.0
10. IKJEFT01	Password Change	543	2.5

June Top Ten OS/MVS Programs: CPU Seconds Used

Program	Description	CPU Seconds	% of Total
1. SASLPA	SAS Version 5.18	33688	34.3
2. PGM=*.DD	Compiled Program	25204	25.7
3. SPSS	SPSS Version 4.0	8206	8.4
4. COMPLET4	Academic COM-LETE	7972	8.1
5. SAS370	SAS Version 6.06	7519	7.7
6. SPCHLCOB	COBOL2 Report Writer	4382	4.5
7. IGYCRCTL	VS COBOL2 Compiler	4219	4.3
8. IEWL	Linkage Editor	1207	1.2
9. LOADER	System Loader	807	0.8
10. IEBGENER	IBM Utility	711	0.7

System Uptime

- The ACAD CPU (HDS/8083) achieved 100% uptime in June and 99.7% uptime in July. The HDS/7360 DASD achieved 100% uptime in June and July. The HDS/7380 DASD achieved 100% uptime in June and July.
- The ADM CPU (IBM 9121/440 processor) achieved 100% uptime in June and July. The HDS/7360 DASD achieved 100% uptime in June and July. The HDS/7380 DASD achieved 100% uptime in June and July. The IBM 3390 DASD achieved 100% uptime in June and July. The EMC Solid State Disk achieved 100% uptime in June and July. ■

MAINFRAME TECHNICAL SERVICES

July Top Ten Programs : Frequency Of Runs

Program	Description	# of Runs	% of Total
1. PGM=*.DD	Compiled Program	8956	23.5
2. IEWL	Linkage Editor	8072	21.2
3. IGYCRCTL	VS COBOL2 Compiler	6267	16.5
4. IEBGENER	IBM Utility	5664	14.9
5. SPCHLCOB	COBOL2 Report Writer	2631	6.1
6. CASMA001	Sort Utility	1839	4.8
7. SPSS	SPSS Version 4.0	1348	3.5
8. SASLPA	SAS Version 5.18	821	2.2
9. IEFBR14	IBM Null Utility	274	0.7
10. SAS370	SAS Version 6.06	174	0.5

July Top Ten Programs: CPU Seconds Used

Program	Description	CPU Seconds	% of Total
1. SASLPA	SAS Version 5.18	119729	58.8
2. PGM=*.DD	Compiled Program	22661	11.1
3. SPSS	SPSS Version 4.0	21011	10.3
4. IGYCRCTL	VS COBOL2 Compiler	8232	4.0
5. SPCHLCOB	COBOL2 Report Writer	8054	4.0
6. SAS370	SAS Version 6.06	7978	3.9
7. COMPLET4	Academic COM-LETE	6110	3.0
8. IEWL	Linkage Editor	2919	1.4
9. SSS4001	Operations Automation	1346	0.7
10. IEBGENER	IBM Utility	1028	0.5

Operating Systems Performance Statistics for June

CPU	SYSTEM	Planned Production Hours	Production Hours Achieved	System Uptime
ACAD	VM/XA	744.00	719.83	99.9%
ACAD	MUSIC/SP	724.45	698.03	99.9%
ACAD	MVS/JES2	744.00	719.83	99.9%
ACAD	COMPLETA	743.38	719.02	99.9%
ADMN	MVS/JES2	720.00	717.74	99.7%
ADMN	COMPLETA	300.00	300.00	100.0%
ADMN	ADABASA	700.11	697.21	99.6%

Operating Systems Performance Statistics for July

CPU	SYSTEM	Planned Production Hours	Production Hours Achieved	System Uptime
ACAD	VM/XA	744.00	740.44	99.5%
ACAD	MUSIC/SP	723.05	718.92	99.4%
ACAD	MVS/JES2	744.00	738.74	99.3%
ACAD	COMPLETA	743.38	737.97	99.3%
ADMN	MVS/JES2	744.00	739.78	99.4%
ADMN	COMPLETA	333.00	329.62	99.9%
ADMN	ADABASA	722.91	717.13	99.2%

Key Causes Of Lost Productivity In June: ACAD CPU

Miscellaneous

1. Stopping HDS 8083 MPU while de-installing a MEMOREX 1270 communications controller. 0.17 HOURS

Key Causes Of Lost Productivity In June: ADMN CPU

Miscellaneous

1. Systems software development. 2.73 HOURS
 2. Stopping MVS 370 LAPR while de-installing a MEMOREX 1270 communications controller. 0.17
- TOTAL 2.90 HOURS

Key Causes Of Lost Productivity In July: ACAD CPU

Miscellaneous

1. Replace faulty component in 8083 CPU 1 processor. 1.84 HOURS
 2. Upgrade microcode in 8083 MPU. 1.15
 3. Component failure in 8083 CPU 1 processor. 0.98
- TOTAL 3.97 HOURS

Key Causes Of Lost Productivity In July: ADMN CPU

Comten 390 Processor (NCR) Communications

1. Replace faulty MEM unit 3 component. 0.95 HOURS

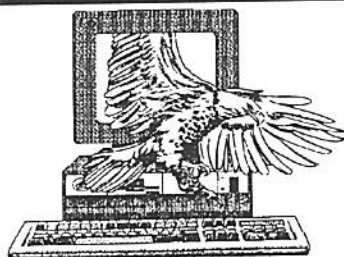
Miscellaneous

1. BMPX 0, channel set 0 entered check stop state due to apparent power surge during thunderstorm 2.30 HOURS
 2. Reconfiguring BMPX 0, channel set 1 for MVS/ESA. 1.70
 3. Systems software development. 0.83
- TOTAL 4.83
GRAND TOTAL 5.78 HOURS

MAINFRAME TECHNICAL SERVICES

Disk Backup Schedules

SYSTEM	BACKUP	DESCRIPTION
Administrative MVS/SP	Daily	Monday - Friday around 7 p.m. (after COM-LETE is shut down) & on Saturday & Sunday if COM-LETE has been up that day.
	Weekly	Full pack dumps taken each Sunday morning.
	Monthly	Full pack dumps taken on the first day of each month.
Academic MVS/SP	Daily	Monday - Sunday during the early hours of the morning.
	Weekly	Full pack dumps taken each Sunday.
	Monthly	Full volume dumps taken on the first day of each month.
MUSIC/SP	Daily	Wednesday - Monday starting at 4 a.m. and lasting about 30 minutes.
	Weekly	Tuesday mornings at 3 a.m., these last about 2 hours.
	Semester	Once a semester, a permanent backup is taken.
VM/XA	VM Weekly	Early every Wednesday morning.
	CMS mini-disks	Daily backup performed early every morning. Weekly backup every Tuesday starting after Midnight.
	Semester	Once a semester, a permanent backup is taken.
VAXcluster	Daily	Incremental backups are performed Monday - Thursday at 6 p.m. Saturday & Sunday at 5 p.m.
	Weekly	Full backups are performed every Friday beginning at 8 a.m. Generally lasts all day.
	Monthly	A "stand-alone" backup is performed monthly. Dates and times are given in the system log-on message.
	Semester	Once a semester, a permanent backup is taken.
Solbourne	Daily	Incremental backups are performed Sunday - Friday at 2 a.m.
	Weekly	Full backups are performed every Saturday at 7 a.m.
	Semester	Once a semester, a permanent backup is taken.



**University
of North
Texas
Computing
Center**

Claudia Lynch, *Benchmarks* Editor
Dr. Philip Baczewski, *Benchmarks* Associate Editor
Cynthia Koepp, *Benchmarks* Assistant Editor

Richard A. Harris, Associate Vice President for Computing
Bill Buntain, Director of Network and Microcomputer Services
Dr. Paul Gandel, Senior Director of Academic Computing
Coy Hoggard, Senior Director of Administrative Computing
Steve Minnis, Director of Mainframe Technical Services

Get a Subscription to *Benchmarks*

Benchmarks is a vital link between the UNT Computing Center and the users of our facilities. It is important for all users of the computing facilities to maintain a file of these newsletters because they contain materials which will periodically update existing documents as well as information and suggestions on uses of OS/MVS, MUSIC/SP, CMS, the VAXcluster, Solbourne, Microcomputers, and other resources available to UNT students and faculty. To facilitate the dispersal of *Benchmarks*, *** **FREE** *** subscriptions are available. To receive yours, send the following information to us either by snail mail (the post office or campus mail), FAX (817) 565-4060, or through electronic mail, to the User-ID AS04 on MUSIC, VMS, SOL, or CMS.

Name: _____

Mailing Address: _____



Academic Computing Services
The Computing Center
NT Box 13495
University of North Texas
Denton, TX 76203
FAX 817-565-4060

Computing Center Short Course Registration Form

Please complete this form and return it AS SOON AS POSSIBLE if you wish to attend any of the short courses listed below. You may also register over the phone by calling (817) 565-2324. **FACULTY AND STUDENTS HAVE FIRST PRIORITY TO REGISTER FOR THESE CLASSES. A VALID USER-ID IS REQUIRED FOR CLASSES MARKED WITH AN ASTERISK (*).** Academic Computing Services reserves the right to cancel ANY course that has 5 people or less registered 3 days before the date of the course.

NAME: _____ FACULTY ____ STAFF ____ STUDENT ____
DEPT: _____ UNDERGRADUATE ____ GRADUATE ____
PHONE: _____ MAILING ADDRESS: _____
SSN: _____ USER-ID: _____
Staff: SUPERVISOR SIGNATURE: _____

I wish to attend:

- **Intro. to SAS (ISB 110)*:**
____ Monday, Sept. 14: 2-4 p.m.
____ Tuesday, Oct. 20: 3-5 p.m.
- **Intro. to SAS on CMS (ISB 110)*:**
____ Monday, Sept. 21: 3-4 p.m.
____ Wednesday, Oct. 21: 4-5 p.m.
- **Intro. to IBM JCL (ISB 123):**
____ Wednesday, Sept. 23: 3-5 p.m.
- **Intro. to SPSS (ISB 110)*:**
____ Thursday, Sept. 24: 1-4 p.m.
____ Monday, Oct. 26: 2-5 p.m.
- **Intro. to Electronic Mail & Discussion Groups on CMS (ISB 123):**
____ Monday, Oct. 5: 3-5 p.m.
- **Intro. to Internet Tools (ISB 123):**
____ Thursday, Oct. 15: 3:30-5 p.m.
- **Intro. to UNIX (Chilton 255)*:**
____ Tuesday, Oct. 6: 3-5 p.m.
- **Intro. to SAS on UNIX (ISB 110)*:**
____ Monday, Oct. 19: 4-5 p.m.
- **Intro. to Macintosh (ISB 110):**
____ Thursday, Oct. 1: 2-4 p.m.
- **Intro. to DOS (ISB 110):**
____ Tuesday, Sept. 22: 2-4 p.m.
- **Intro. to CMS (ISB 110)*:**
____ Thursday, Sept. 17: 3-5 p.m.
____ Wednesday, Sept. 30: 10 a.m.-Noon
- **Intro. to SAS PC (ISB 110):**
____ Wednesday, Sept. 16: 4-5 p.m.
____ Thursday, Oct. 22: 4-5 p.m.
- **Intro. to VAX/VMS (Chilton 255)*:**
____ Wednesday, Sept. 30: 3-5 p.m.
- **Intro. to SPSS PC+ (ISB 110):**
____ Tuesday, Sept. 29: 2-5 p.m.
____ Tuesday, Oct. 27: 2-5 p.m.
- **Intro. to Electronic Mail & Discussion Groups on VMS (ISB 123):**
____ Tuesday, Oct. 13: 3-5 p.m.
- **Intro. to Procomm+ (Chilton 255):**
____ Tuesday, Sept. 15: 3-4 pm
- **Intro. to vi (Chilton 255)*:**
____ Thursday, Oct. 8: 3-5 p.m.
- **Intro. to SAS/Graph (ISB 110):**
____ Wednesday, Oct. 14: 3-4 p.m.
- **Intro. to WP 5.1 (ISB 110):**
____ Thursday, Oct. 8: 2-5 p.m.



Academic Computing Services
The Computing Center
NT Box 13495
University of North Texas
Denton, TX 76203
FAX 817-565-4060
